

IN THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph beginning on page 7, line 29 with the following:

The filter 72 serves to identify and process structural features of the input image and non-structural features or regions. Thus, at block 86 of Fig. 4, routines are performed for identifying structures 88 within the normalized image, and differentiating such structures from non-structures 90. The structures are then processed by anisotropic smoothing as indicated at block 92, followed by sharpening, as indicated at block 94. The non-structure, on the other hand, is processed by isotropic smoothing, as indicated at block 96. The processed structure and non-structure then forms a filtered image, as indicated at reference numeral 98 in Fig. 4.

Please replace the paragraph beginning on page 10, line 15 with the following:

In parallel with this processing, the redundancy metric described above is determined. The redundancy metric is determined as illustrated in Fig. 6 by determining the pixel size (block 116), that is, the physical dimensions of pixels in the reconstructed image. As will be appreciated by those skilled in the art, this determination is based upon the display field of view and the image size, in pixels, and results in a metric having units of length (typically millimeters). The module 76, then, determines the pixel sampling rate from the pixel size. The sampling rate may generally be considered to be the inverse of the pixel size, resulting in a quantity measured in cycles per unit length.

Please replace the paragraph beginning on page 10, line 24 with the following:

The optimal sampling rate, which may be denoted S_0 , and the pixel sampling rate, which may be denoted S_p , are then compared as indicated at step 118. In general, it is preferred that the pixel sampling rate be at most the value of the optimal sampling rate. Thus, based upon the comparison at step 118, the optimal or desired shrink or sub-sampling parameter is determined. In a present implementation, as represented in Fig. 6, if the value of S_0 is greater than or equal to the actual sampling rate S_p , the shrink parameter is set to a value of unity (block 120). That is, the image is already sampled at a rate lower than the optimal sampling rate so any additional shrinking or sub-sampling will yield under sampling. On the contrary, if the optimal sampling rate is less than the pixel sampling rate, the shrink or sub-sampling parameter is set to the value of S_p/S_0 (block 122). That is, the image is sampled at a higher rate than the optimal rate, such that additional sampling can be done without losing image information. The value of S_p/S_0 may be considered in the present context, the redundancy metric. The resulting parameter is then used in the processing described above for shrinking or sub-sampling the input image for filtering.